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FORMULATING INDICATORS OF DEVELOPMENT  
COMPLETION REPORT

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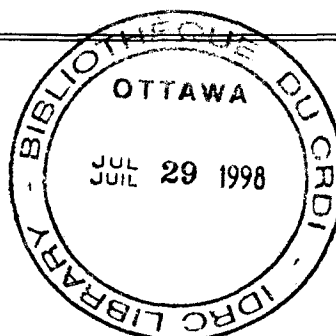
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CHAPTER I  
INTRODUCTION

1.0 DEVELOPMENT :

Development is fundamentally a process of change that involves the whole society - its economic, socio-cultural, political and physical structures, as well as the value system and way of life of the people. The process of development is that of improving the life situation of people which includes fulfilment of basic needs, work satisfaction and self actualisation. Any sustained impact on the lives of the people is possible only with the involvement of the people themselves in the process. Development is brought about, when everyone concerned jointly decides the direction of development efforts. \*1. The concept of development can be viewed as a process of realizing certain goals or values, such as improved health, housing, better nutrition, more communication, improved transportation and increased command over resources. On the other hand, comparative studies between "more developed" and "less developed" countries can be made and the differences can be adopted to indicate the meaning of development.

2.0 THE INDIAN SCENARIO :

The Indian rural environment has a marked degree of variability, if not also imperviousness to absorbing, let alone spreading, the benefits of economic and social development. \*2.

- \*1 - Rastogi P.N.; Policy solving for social system towards understanding, monitoring and managing complex, real world problem
- \*2 - Manga Pramlal; Health and Socio-economic development in India - An overview.

The history of development planning has taught us that India, by virtue of being inhabited by people belonging to diverse socio-cultural backgrounds, it is difficult to have an unique and unanimous development package to suit all sections of the society.

In India, we are now moving towards micro level planning at the conceptual level. There is however a danger that we have been repeating at the micro level what we have been doing at the macro level, i.e. aggregating sectoral schemes in terms of investments and departments, and failing to arrive at integrated development, which is both a more compelling and complex task at the micro level. The need for integrating the human factor at the micro level is a greater necessity for localised development. If our rural development has lagged behind and our villages remain largely outside the development process, it is not for want of attempts in the past to ennumerate rural resources, target groups and development needs but because of lack of participatory grassroot planning.

### 3.0 MEASURING DEVELOPMENT :

Science and technology have had an important role in accelerating India's development be it industrial development or development in agriculture. This has influenced the quality of life of people both urban and rural poor, which needs to be measured. \*3.

\*3 - Surjit Bhalla; 1988; Does land quality matter ? Theory and measurement, Journal of Development Economics, North Holland.

Social scientists in order to quantify development have devised composite indicators such as Human Development Index (HDI), Physical Quality of Life Index (PQLI) etc. It is clear that we (the third world countries) have a long way to go before our human development catches up with that of the developed nations. It is possible to use the composite indicators with a few alterations and additions to suit the Indian conditions. Quantifying development will help assess the changes in rural situation.

#### 4.0 BAIF AND ITS ACTIVITIES :

BAIF is a non-political, secular and professionally managed voluntary organisation established in 1967. The major thrust of all activities has been to improve the utility of the existing natural resources in rural areas by applying relevant advances in science and technology and by equipping the rural population to harness the fruits of such increased productivity.

The field operations commenced with the programme of crossbreeding cattle, the diverse activities now include tribal rehabilitation, community health, watershed management, afforestation, bio energy, sericulture and other rural based vocations. Helping the weaker generations of the rural community to generate gainful self-employment and involvement of women in development programmes are notable features. Over the years the programmes have increased in a need based manner, thus cattle nutrition and health were included in cattle development programmes.

BAIF has long standing experience in closely studying the socio-economic conditions of the rural poor and has realised the need to improve the quality of life of the landless and small farmers. BAIF's mission is to create opportunities of gainful self employment for rural families, especially disadvantaged sections ensuring sustainable livelihood, enriched environment, improved quality of life and good human values. This will be achieved through development research, effective use of appropriate technologies and upgradation of skills and capabilities with community participation.

#### 5.0 NEED FOR THE PROJECT :

BAIF has been involved in rural development and upliftment activities for over two decades. The technologically diverse programmes respond to needs of the rural poor in a variety of geographical, social and ecological settings. The basic goal of BAIF's programmes is to bring about sustainable improvements in the quality of life of the people in its areas of operation while upgrading the natural resource base on which people depend. Now, with the expansion of BAIF's operational areas and the growing interest of other agencies learning from our experience, BAIF felt the need to develop and test a set of portable indicators for measuring development impacts.

These indicators would be useful to :

- Monitor and evaluate programmes

- Provide frame of reference for NGO's to manage their programmes
- Provide performance information to donors

Given the close link between research and sustainable development in BAIF's programmes the output of this activity would be applicable both to research institutes and development organisations. This exercise helped us identify and validate indicators sensitive to change in a family's economic status, living conditions, the environment and the natural resource base.

#### 6.0 OBJECTIVES :

##### General Objective

The general objective of this study was to develop a portable set of indicators by using alternative methodologies.

##### Specific objectives

1. To identify indicators and validate them with reference to sensitivity and accuracy.
2. To develop indicators by a participatory approach.
3. To understand participants perception to development at the individual and community level.
4. To generate ideas for developing indicators alongwith alternative methodologies for measuring indicators for development.
5. To identify the effectiveness of national and international indicators in field study and assess whether they are apt for Indian condition.



## CHAPTER II

### INDICATORS

#### 1.0 PANORAMA :

In any organised sector, study or programme there arises a need for stock-taking in respect of goals and objectives, means adopted for attaining these goals, the degree of achievement and the causes of success or otherwise. The approach to or philosophy behind such an exercise is based on application of standards of rationality in the performance of the visualized tasks. The exercise is undertaken with the hope that social action would follow rational course and that rational social action is a means for progress.

Indicators are designed to provide a standard against which to measure or assess the progress of an activity against stated targets, towards delivering its inputs, producing its output and achieving its objectives. \*4

Indicators are used at the national level, sub-national provinces' or districts' level or at the local peripheral system and community levels. Various attempts have been made to reach one composite indicator from a number of indicators such as :

1. Social and Economic indicators
2. Health status indicators
3. Environment indicators

At the micro level, composite indicators lose their significance because of wide disparities in the standard of living of urban and rural inhabitants and differences

\*4 - United Nations ACC Task Force on Rural Development; Monitoring and Evaluation Guiding Principles.

amongst the rural households per se. Broader analyses shows the shallowness of purely economic development formulas that discourage investment in people, health and education. GNP, GDP, inflation, interest and unemployment rates are loaded with biases because (Hazel Henderson, 1992 Paradigms in Progress: Life beyond economics) they foster an unrealistic view that equates real wealth with mere money.

## 2.0 WHAT ARE INDICATORS :

Indicators are variables that help to measure changes in the given situation. They are defined as specific and objectively verifiable measures of changes or results brought about by an activity. In India and abroad, there is a growing recognition of the need for new ways of measuring progress. In order to make it easier to monitor projects and their impact, it is necessary to use some development indicators to facilitate speedy assessment. These indicators are expected to be a sum of various small measurable and unmeasurable changes into one large perceivable change. Indicators are of critical importance in realizing the objectives of rural development projects and programmes because such projects are usually multi dimensional in nature.

## 3.0 INDICATORS ARE NOT TARGETS :

Indicators are not targets, and neither indicators nor targets should be confused with objectives. Targets are specified results in terms of quantity or time (usually both), but indicators may relate to inputs, outputs, effects or impacts.\*5

\*5 - Monitoring and evaluation; A Glossary.

Indicators are used as markers of progress towards reaching immediate or long term objectives. They are not numerical targets in themselves. Indicators in the ultimate analysis are determined by the nature of objectives, intended effects and impact of the project. The concern for formulating indicators rests on :

1. Impact on beneficiaries and poverty alleviation
2. Efficient and effective project implementation
3. Early corrective action

#### 4.0 CHARACTERISTICS OF INDICATORS :

1. Indicators should be specific in terms of magnitude and time, and taken together should reflect the effect of a project/activity rather than effect of external factors.
2. Indicators should be relevant to project objectives. Each indicator should refer to facts rather than subjective impressions. It should have the same meaning to a project advocate and an informed sceptic.
3. Indicators should be based on available data. They should draw upon data that are readily available or that which will be collected as part of project administration. The results should be worth the time and money it costs to apply them.
4. Finally they should be sensitive to changes in the situation being observed and it should be possible to collect the data reasonably quickly.

Few sets of data can fulfill all these criteria. But they may still indicate direction and general magnitude, thereby

assisting in comparisons over time, or among different areas or groups of people at a point in time.

The choice of appropriate indicators is a task that requires experience and skill. It also requires a thorough understanding of the available information, needs of the management at various levels, knowledge of how best to obtain the data for the indicators and of the limits imposed by both costs and techniques.

#### 5.0 TYPES OF INDICATORS :

Indicators are of two types namely process and impact. Process indicators are defined as the outcome of the project i.e. they are essentially concerned with the disbursement and delivery of physical inputs and outputs than with the nature and impact of beneficiaries. The process indicators are ideally observed during the implementation phase of any activity, for its continuing relevance, efficiency and effectiveness. It can assist decision makers by providing information about any needed adjustments of objectives, policies, implementation strategies or other elements of the project, as well as providing information for future planning. They include indicators such as, incremental crop production in agriculture projects, increased use of health services or higher attendance at schools because of improvements in facilities and services.

Impact indicator assessment is undertaken at full project development i.e. after project completion when full project benefits and impact are expected to have been realized.

Impacts are of two types namely anticipated and unforeseen impact. Project impact relates to changes in production and actual living conditions among project beneficiaries, flowing from and attributable to the project. The theory of impact measurement is derived largely from biological experimentation. The problem is that human population do not lend themselves to the same degree as potatoes or rice to controlled experimentation. Finally, whether the project has an impact, and how much, is therefore in most cases a matter of judgement.

#### 6.0 LIMITATIONS OF MACROLEVEL INDICATORS :

Various research institutes both international and national have pursued research in the area of impact and process indicators. Eurocentric models (derived by the West or European continent) are too narrow and one-dimensional to serve as a framework for truly human, ecologically sustainable development and culturally specific models for development. \*6 Today, we still suffer in the North and Southern hemisphere from international systems of finance, debt and currency manipulation invented in the Northern hemisphere. These unreal, inequitable systems have become a structural element blocking the aspirations for real and sustainable development of most third world countries. The developing countries have now taken it upon themselves to develop along their own specific and cultural paths. The

\*6 - Iyenagar N.S. and Bhattacharya N; 1991; Studies on levels of living in India; A survey in Economics

delve into their own tradition and cultural heritage to optimize their own primary values and goals. As this type of rethinking proceeds, new indicators suitable to our own conditions will emerge.

The macro indicators are however relevant only at the national level but its implication and significance at the local or rural level is not demonstrable. This is because macro indicators cater to a broader population base who have common characteristics. For example, classifications determining by per capita standards developed in the west seldom apply to the east.

The availability of data on indicators are of paramount importance. Immediate objective indicators for which data are not readily obtainable, or for which no specific collection arrangements are made as part of the implementation process, are usually of little value. As a matter of fact, experience has shown that data which are to be collected exclusively for the purpose of measuring progress somehow often do not get collected.\*7

Once the indicators are selected and the data sources identified, it is imperative to verify that, if fulfilled, progress will have been made towards the attainment of the development objectives. Finally, each indicator is traceable to an output or an output assumption. Outputs are the products of completed activities.

\*7 - Jean-Jacques Goughet; 1990; Asia Pacific Conference

It is a well known fact that, pre-determined indicators for performance may not provide a sufficient basis for deciding whether or not the objectives are being attained.\*8 An evaluator seeks to search for factors which favour, or hinder the achievement of the objectives of a programme or a project.

\*8 - Monitoring and Evaluation concepts and Terminology in the United Nations systems; A Glossary

## CHAPTER III

### INDICATORS IN PRACTICE

#### 1.0 HISTORICAL ASPECT OF INDICATORS :

The past thirty years have witnessed a series of calls for new "indicators". These could allow assessment of development and growth beyond traditional measures of progress that are dominated by economic factors such as employment rates, income, gross national or domestic product, etc. In the 1960s the search for new indicators stemmed from a desire to improve the monitoring of the quality of life and social conditions (Dann, 1984; Murdie, 1992). In the 1970s the drive to better monitor environmental quality provided impetus (CEQ, 1972 ; Inhabler, 1976). In the mid 80s assessing the health of communities emerged as a concern and sets of indicators of healthy communities were developed (Jackson & Nishri, 1988 ; Hancock, 1989, 1990, 1991). Since 1990 the United Nations Development Program has published the "Human Development Report". The human development index is now gaining recognition as a key indicator of human well-being (UNDP, 1990).

Alternative approaches to economic monitoring have been discussed time and again. Natural resource accounting has also received much attention through the efforts of the United Nations, the organisation for economic cooperation and development and the world bank.

During the past decade, the soaring costs of health care have prompted a review of health information systems. New approaches to identifying the determinants of well-being



that attempt to better integrate economic and environmental factors with those traditionally considered are being explored (Evans & Stoddart, 1990).

In the late 80s and now in the 90s, the popularization of the concept of sustainable development has brought a new wave of interest in improved indicators. The 1989 G-7 Economic Summit called for such indicators (Kerr, 1990) and the same interest is echoed in documents emerging from the 1992 Earth Summit held in Rio, Brazil.

Over the past decades, a number of attempts have been made to establish improved 'indicators' - better means of monitoring society's progress than are provided by traditional economic indicators. These efforts were done at various levels namely global, national and local. Each of these levels essentially refers to

- an assessment of the integrity, health or well-being of the ecosystem and its interaction with society and individuals.
- an assessment of the interaction between people and society: how and to what extent people's activities contribute to the provision for basic needs and quality of life.
- an assessment of the well-being of people (individuals, communities, corporations, regions, states, nations and other decision making groups) including the range of physical, social, cultural and economic attributes.

These efforts have culminated into the formulation of indicators at various levels. This is manifested in the efforts taken by different organisations like UNEP's State of the World Development and Environment Data Report series, UNICEF's State of the World Children series, UNESCO's World Education Reports, World Resources Institute and World Watch Institute, State of the world series, etc.

Everyone recognises the importance of sound national plans and policies as a way of making scarce resources contribute maximally to development. But rigorous analysis of national data may not adequately protect the planner against pursuing bad policies or being binded to better alternatives. This is chiefly because of the difficulty in securing adequate reliable data, particularly at the local level, to use as a base for rigour.

The traditional models equating industrialization and averaged per capita income, currency denominated Gross National Product and Gross Domestic Product growth with development have proved failures in most of the developing countries. While economists in the third world foresee a rosy picture, giving claims that there is an increase in gross national product, international trade, employment and stock prices in the eighties and nineties, it is contradictory to the picture given by ecologists who record deforestation, land degradation, climate warming, air and water pollution and loss of bio-diversity. More relevant to the third world countries is an index which measures

satisfaction of basic human needs such as literacy, average life expectancy and gross domestic product adjusted for purchasing power. It also indicates ecological health since damage to the environment lowers grain production. Therefore the income based indicators only portray a partial picture of the real situation.

Many research and funding organisation have acknowledged the inadequacy of such income based growth indicators, noting that they do not reflect success in meeting basic needs such as food, education, health care, equality of opportunity, civil liberties and environmental protection. It is now commonly realised that economic growth is not enough as an indicator to measure human welfare, while income is a major determinant of human welfare it is nonetheless a partial measure.

## 2.0 ANALYTICAL FRAMEWORK OF DEVELOPMENT :

Development is defined as " an attempt to realise the potentialities of, and to bring to a better state. Development has both quantitative and qualitative characteristics. This then refers to a system which includes people, the enveloping ecosystem and the interaction between the two. Development is the sum total of the metamorphosis of what occurs in the economic, social and cultural environment. These changes have positive and negative repercussions on the society. These in turn determine the quality of life indicators. Since no community or society is

homogeneous there are spectrums or ranges of indicators applicable to a family or individual. The range of indicators that are applicable to an individual or society depends on the prevailing socio-cultural factors. The range of indicators varies from community to community. The needs of sections of society gets satisfied and translated at different levels.

The achievement of a particular goal or type set refers to an enhancement in status and therefore an improvement in the quality of life. Since development is the culmination of many factors the achievement of either, essentially means development in the positive sense.

### 3.0 NEED FOR DEVELOPING ALTERNATIVE YARDSTICKS :

There is a growing recognition of the need for new ways of measuring progress. In the early stages of development, expansion and output directly got translated into raising living standards. Thus it became customary and not illogical to equate progress with economic growth. Over the years, average income has become less satisfactory as a measure of well being. Since it does not reflect either environmental degradation or how additional wealth is distributed, resulting in dissatisfaction which has had led to the development of alternative yardstick.

#### 4.0 LITERATURE FRAMEWORK :

The literature studied has been classified according to various parameters which has been given a sectoral treatment. Each of the parameter explains deals with the historical evolution of the indicator and the progress it has made overtime. The references of all the literature studied is given in **Annexure I**

##### ECONOMIC STATUS

Although development has been a constant concern of government, policy makers, economists and social scientists, there has been no consensus on what development is. The clear value of economic data and analysis to decision making has motivated them to mandate the creation of extensive global economic data sets. The traditional income based indicators merely measure the growth of income, its capital availability or compare economic position across time and space.

At the global level indicators used are Gross National Product, Official Development Assistance, External Debt Indicator, Central Government Expenditures, etc. However at the micro level these indicators loose all its significance national income (GNP) and its derivatives like per capita income, increase in GNP etc. become the goal of development and with this the question of promoting individual well being recedes. All the way it was assumed that well being would follow automatically from economic growth.

The blithe and facile assumption was made that the benefits of growth would somehow eventually trickle down. By the end of the 60's it was evident from the experience of developing countries that there was no such percolation of benefits and massive poverty continued unabated.

Later on attempts were made to device indicators of development other than per capita income such as expenditure pattern of a community, the wealth accumulation capacity of a community or the ownership of assets.

#### SOCIAL STATUS

There has been a change of emphasis from economic development to socio-economic development and now the spot light is on human development with 'people' as the main concern. The social status is a very broad terminology encompassing culture, race, nationality, language, tribe, customs and privileges. Apart from these factors like literacy educational betterment and economic advancement are also important determinants of social status. The indicators of better social status as per a study done by Ghuge and M.N. Srinivas are ability of a family to move up on the social ladder due to development of skills and educational betterment.

#### STATUS OF WOMEN

In every state women's status has always been lower than male. The reason for this is that every society denies women freedom in varying degrees. And when the average

literacy level in a society is low the difference between male and female literacy begins to increase. So status of women not only measure literacy or health status in a state or a country but also has built into it a certain expression of the social freedom that exists for citizens. (C. Chidambaram, 1993 Times of India)

There is also a strange co-relation between birth rate and literacy. As female literacy increases the birth rate also seems to come down. This is because once the mother is educated and begins to understand the problems not only regarding her health and that of her children, but also her social obligations, then the birth rate seems to come down. Such co-relation also exists with other health parameters like infant mortality.

Therefore status of women is a very important development parameter for India and if we are able to improve it, many health parameters will improve significantly.

#### HEALTH STATUS

Health has been defined in many ways, depending on the context ranging from absence of disease to physical, mental and social health. The indicators of health referred to by Daly are immunization status, height and weight of children in the age group 1-5, mother and child health care, availability of health facilities in a radius of 5 kms etc.

### QUALITY OF LIFE AND NATURAL RESOURCE MANAGEMENT

The crux of participative development rests on the premise of generating incentives for people to participate in externally designed programmes and projects for resource management.

The indicators of environment status used by UNCED are tree population in a radius of 2 kms, tree species grown, impact of forests on rainfall, use of improved devices for cooking the average temperature in an area etc.

The literature studied were analysed sectorally. Apart from those mentioned above there are composite indicators which were devised in order to jointly evaluate more than one component. Many indicators put together comprises an index. It is easier to compare indices over a time or across countries or regions to assess if a country is doing well. In the absence of an index, one would have to compare a number of attributes - that affect sustainable human welfare. Such comparisons are usually difficult to make and often their outcome is inconclusive.

#### 5.0 COMPOSITE INDICATORS :

Three interesting recent efforts are the Human Development Index (HDI) or Physical Quality of Life Index (PQLI) devised by the United Nations and Index of Sustainable Economic Welfare (ISEW) developed by Herman Daly and John



Cobb. A third indicator namely grain consumption per person, is a particularly sensitive measure of changes in well being in developing and low income countries. (Ref. Ecodecision June/July 1992)

## 1. HUMAN DEVELOPMENT INDEX

The HDI measured on a scale of 0 to 1 is an aggregate of three indicators : longevity, knowledge and command over resources needed for a decent life. For longevity the United Nations team has used life expectancy at birth. For knowledge, they used literacy rates since reading is the key to acquiring information and understanding. And for the third factor they used gross domestic product per person after adjusting it for purchasing power. Because these indicators are national averages they do not deal directly with distribution inequality, but by including longevity and literacy, they indirectly reflect the distribution of resources.

While the HDI represents a distinct improvement over income figures as a measure of change in human well being, it says nothing about environmental degradation. As a result it is said that HDI can rise through gains in literacy, life expectancy or purchasing power that are financed by the depletion of the natural support systems, setting the stage for a longer term deterioration in living conditions.

## 2. INDEX OF SUSTAINABLE ECONOMIC WELFARE

This is the most comprehensive indicator of well being available, taking into account not only average consumption but also distribution and environmental degradation. After adjusting the consumption component of the index for distribution inequality, the proponents of this theory, Herman Daly and John Cobb take several environmental costs (such as pollution costs both direct, indirect and internal external) associated with economic mismanagement. These include depletion of non renewable resources, loss of farm land from soil erosion and urbanisation, loss of wetlands, and the cost of air and water pollution. Daly and Cobb also incorporate what they refer to as 'long term environmental damage', a figure that attempts to take into account such large scale changes as the effects of global warming and damage to the ozone layer. Refer Ecodecision June/July 1992.

The principle weakness of the ISEW, is its dependence on information that is available in only a handful of nations. For example few developing countries have comprehensive data on the extent of air and water pollution. Such data is collected at best once a decade in most of the third world.

## 3. GRAIN CONSUMPTION MEASUREMENT

This indicator looks at the satisfaction of a basic human need and is far less vulnerable to distortion by

inequities of purchasing power. Here the wealth disparity between the richest one fifth of the country and poorest one fifth is calculated. Thus, a gain in average grain consumption in a country typically means a gain in welfare. (Ref Ecodecision June/July 92).

Grain production is also a more sensitive barometer of environmental degradation than income is, since it is affected more immediately by environmentally destructive activities outside agriculture such as air pollution, the hotter summers that accompany global warming, and increased flooding as a result of deforestation.

Of these new measures, the Index of Sustainable Economic Welfare is by far the most sophisticated indicator of progress now available, although its use is constrained by lack of data. In low income countries where the relevant data to calculate the ISEW are not available, changes in grain consumption per person can tell more than income figures about improvements or deterioration in well being.

#### 4. INDICATORS USED BY THE PLANNING COMMISSION OF INDIA

It is important to select a small number of national indicators that have social and political punch in the sense that people and policy workers will be incited to action by them. For the consideration of information

requirements and of the practical problems involved in determining and using indicators, selectivity must be the key note.

The Planning Commission (Chakravorthy Committee Report) has pointed out the following indicators as having prime importance. (Ref. Planning Commission Report, 1989)

- 1) Density of population.
- 2) Percent of agricultural workers to total work force.
- 3) Percentage of households using electricity.
- 4) Length of surface roads.
- 5) Gross value of output of food grains and non-food grains per head of rural population.
- 6) Improvement in literacy rates as yardsticks of measurement.

## 5. INDICATORS USED BY THE WORLD BANK

The World Bank has a set of indicators derived on the basis of macro aggregates. These indicators depend upon the import and export patterns, debt taking capacity, per capita income levels and demography status.

1. GNP per capita
2. Inflation
3. Life expectancy
4. Growth of production
5. Structure of demand, consumption and manufacturing.

6. Health & nutrition
7. Demography and fertility
8. Urbanization

#### 6.0 RELEVANCE OF MACRO INDICATORS AT THE MICRO LEVEL :

These indicators are more relevant at the international level but its implications and significance at the local or rural level is almost negligible. Nevertheless the international indicators do intersect the national indicators at a certain point i.e. there are parallels drawn at some level. For example literacy rates. Therefore, there is a need to formulate indicators applicable for rural development programmes under Indian conditions.

## CHAPTER IV

### METHODOLOGY

#### 1.0 INTRODUCTION :

Development is a complex phenomenon and there are many factors that contribute to it. To identify the components of development and what leads to it, it is necessary to use different techniques or methods. Keeping in mind the objective of this project, a brain storming session on the relevance of various methodologies for this exercise was initiated. All participants narrated and generated their experiences. Conventional methods of data collection like use of questionnaires or schedules and in depth interviews are time consuming and costly. Data related to KAP is often collected using the conventional methods. However, analysis of the data, often is a very frustrating exercise. Analysis only brings out very broad patterns, which often can be summed up by an experienced field worker as observations. Also important is the fact that such information is required to refine social messages and appreciate the changing trends. The merits and demerits of using alternative methodologies were discussed at large. In the process, participatory methodology was selected because of the following reasons.

#### 2.0 WHY PARTICIPATORY METHODOLOGY :

1. It is our understanding that any development programme that follows a participatory approach should directly relate its programmes to a 'felt need' of the people identified by or with the help of people.

# 1. GLIMPSES OF FOCUSSED GROUP DISCUSSIONS



2. This method plays an important role since it not only assures the programmes to focus on actually felt problems, but it also lays the foundation for subsequent participation.

While selecting the participatory methodology we were clear that we were not to merely focus on problems but to be open to existing potentials and opportunities. However, a major drawback of this methodology is that it cannot provide its user with a real understanding of all the bottlenecks to development that exist within a village especially those in the socio-political field.

The basic questions to be answered by this exercise were,

1. Assuming that development is a dynamic process, whether the socio-economic conditions of the target group have changed in significant ways as a result of project activities.
2. If so in what direction and to what extent?
3. What are the indicators of change

To test effectivity of rapid participatory methods of data collection, we conducted indepth investigations and focus group discussions of small samples of households through open ended questions and probes. Interviewing key respondents and participant observation techniques were also followed.

In order to understand the concept of development as understood and interpreted by the villagers, we carried out



a sample study of 66 villages in 4 states. (See Annexure III for a detailed note on Socio-economic profile of villages). The methodology adopted for the study was focus group discussions and village level meetings as against the conventional survey methodology. The thrust of this exercise was participatory methodology. It aimed at stimulating local knowledge and reinforcing local capacities. This exercise helped the participants to relate our discussions with their way of life (their culture) and to recognize the value of their own experimentation and innovation. In most cases a meeting of men and women belonging to different age groups was jointly arranged. At times separate meetings were arranged for women. The exploratory field study was conducted with the help of a multi disciplinary team comprising social scientists, information specialists, generalists, community health specialists and an agronomist. Each of the team member documented his/her enriched experiences down to the finest detail. The discussions centered around a predecided checklist which included the following points (Annexure IV contains a copy of the checklist used during exploratory visit).

- a) Economic status
- b) Social status
- c) Family status
- d) Status of men and women
- e) Status of health
- f) Status of environment
- g) Status of living condition
- h) Problems faced by the villagers

In course of working with the community adequate care was taken to avoid biases. Therefore each meeting was represented by people belonging to different age groups,

communities, economic and social stratum. We were assisted by interpreters in asking questions and getting answers from the villagers.

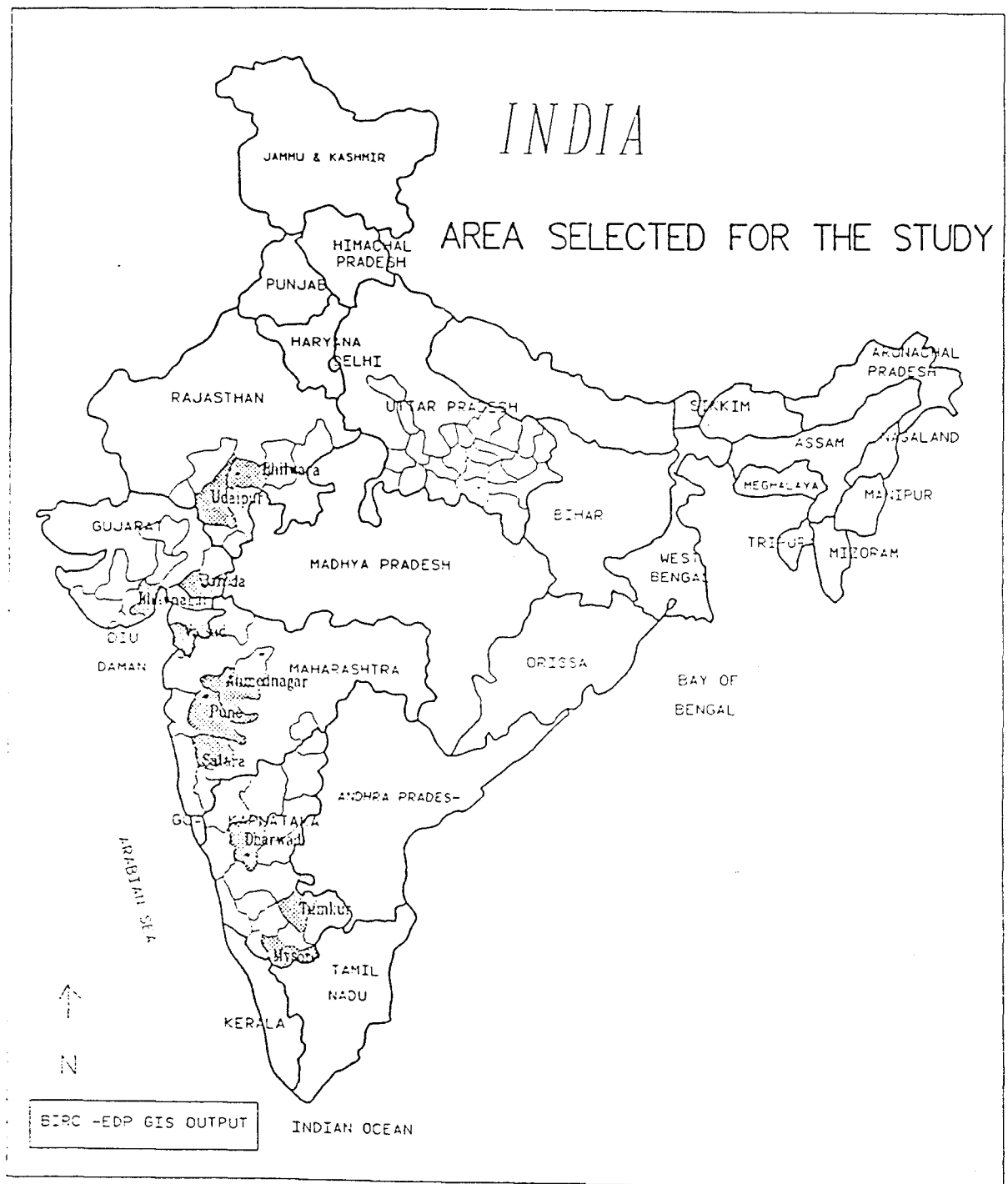
The biases that are likely to arise from such a study are of the following nature,

- road biases i.e. confining exploration to those fields and households which are easy to reach.
- elite biases i.e. restricting contact to the better off beneficiaries.
- gender bias i.e. meeting mainly male beneficiaries and ignoring female beneficiaries.

### 3.0 COVERAGE :

This report is based on the meetings arranged in 66 villages. The statewise and districtwise distribution of the villages is as follows. The map on the areas selected for study is enclosed.

STATE	DISTRICTS	No. OF VILLAGES
Gujarat	Vadodara	6
	Bhavnagar	6
	Valsad	6
Karnataka	Mysore	6
	Tumkur	4
	Dharwad	7
Maharashtra	Pune	7
	Ahmednagar	6
	Satara	6
Rajasthan	Udaipur	6
	Bhilwara	6
Total		66



### 3.0 CRITERIA USED FOR SELECTING VILLAGES :

In order to cover a cross section of the population belonging to scheduled castes, tribes, interior and urban population the following criteria were chosen. (List of villages is given in **Annexure II**)

1. Tribals / Scheduled caste and near forest location
2. Mixed population and interior rural location
3. Mixed population and near urban location

A brief summary on the prevailing socio-economic condition in the four states is given in **Table 1**

Villagers belonging to either of these categories from the different districts mentioned above were selected for the study. With the help of these criteria we were able to study the perceptions of the people belonging to different castes, religions, economic, social and cultural environments. The selections were done in a manner so as to be able to give ample representation of the living condition of people from different geographic locations.

TABLE 1 : SOCIO-ECONOMIC PROFILE

OBSERVATIONS	GUJARAT	KARNATAKA	MAHARASHTRA	RAJASTHAN
Villages Studied	18	17	19	12
Religion	Hindu,Muslim Parsee	Hindu,Muslim Christian	Hindu, Muslim Christian, Buddhists	Hindu, Muslim
Scheduled Castes	Koli Patel, Bharawad, Darabar	Uphar, Dhobi Tigala,Wakhaliza Kumbhar, Madivak, Gange	Mahadev kolis, Matangs,Kumbhars, Chamars, Lohars, Sutar	Koli Patel,Kir, Sutar,Bharwads
Scheduled Tribes	Kokanas,Warli, Kolchas,Dhodiya & Kotwaliya	Adijambu,Edigatuk Jenu Kuruba,Betta Kuruba,Banajigas, Soligas & Yaravas	Adivasi Thakkars and Bhils	Kokanas, Warlis
Landholdings	1-4 acres	2-3 acres	2-5 acres	3-10 acres
Principal Crops	Groundnut, Bajra and Jowar	Ragi,Paddy, Tobacco,Cotton	Sugarcane,Bajra, Jowar	Jowar,Bajra,Rice, Jeera
Irrigation Facilities	Average	Average	Good	Inadequate
Major Occupations	Agriculture	Agriculture	Agriculture	Agriculture
Secondary Occupation	Dairy	Dairy	Agricultural labourers	Dairy
Migration	Regular (diamond cutting)	Regular (construction)	Regular (industry)	Regular (shipbuilding industry)
Infrastructural Facilities	Moderately good	Health & drinking water facilities not available	Drinking water is a constraint	Poor Health facilities
Education	Considered unimportant	Do not know importance	Cannot afford	Not a priority
Women's status	Average	Poor	Average	Poor

CHAPTER V  
DERIVING INDICATORS

1.0 RATIONALE AND OBJECTIVE :

Do the rural communities think different from us the urban based development workers ? It is almost fashionable, in the development circles to boast about the difference and the said ability to perceive it . In different geographical situations the social, economic, health and ecological factors tend to vary. This is because of variations in lifestyle, customs, religious practices and beliefs. The observations of the behavioural patterns in the four states varied but there are some common patterns in the way people come together and resolve their differences. The derived list of indicators is a result of the field study conducted in the 66 villages. In the ensuing paragraphs we have tried to summarize and transcribe the list of indicators that evolved from perceptions of people.

Various key points emerged from the field level observations and group discussions. From the village level discussions and observations, two exhaustive lists of indicators were derived.

- A. Societal indicators.
- B. Individual's perception of indicators of development

The need to differentiate between the two arises because of normative differences.

2.0 ECONOMIC INDICATORS :

The recorded answers and discussions from all the areas reflect that the following are indicators of economic prosperity.

1. Ownership Of assets both household and agriculture :

The assets owned by the lower class of the society are mainly essential items such as bare furniture, wall clock, some utensils and ornaments. Amongst the economically well to do families possessing a radio, automobiles, a steel cupboard, steel utensils and footwear was a common feature . On the agricultural front, ownership of good fertile land approximately 4-5 acres coupled with a tractor or a iron plough is looked upon as asset formation. Hence we can summarize that amongst both classes, ownership of assets is seen as an indicator of development.

2. Production Of foodgrains for sale

A family normally produces for self consumption, but in times of surplus production they do manage to sell a few quintals. Production for sale is uniformly looked upon as an indicator of development in all the 4 states.

3. Good housing condition

This refers to the families desire to own a pucca house, namely houses with cement flooring and pucca roof. Such houses are a rare sight in the villages. Most of the families have kutcha houses made of thatched roofs, bamboos straw and cowdung flooring. Owning a well in the backyard with adequate water all round the year is perceived as another criteria of development.

4. Ability to take loans from the banks

This implies that a villager has adequate security to

enable him to borrow money from the bank. These loans should not be taken for consumption purposes but rather for creating capital goods.

5. Ability to undertake mono-cropping in a year.

This implies that there are adequate irrigation facilities which is also an indicator of development.

6. Practicing innovative ways of growing crops

This refers to the use of chemical fertilizers, drip irrigation and other innovative methods.

7. Affording education

In most of the villages being able to educate ones children was solely looked upon as an indicator of development.

### 3.0 SOCIAL STATUS

The indicators of social status are :

1. Cordial relationship with the villagers

- According to the villagers the social status of an individual is enhanced by helping the neighbours in times of need. There should not be conflicts or quarrels with the neighbours.

2. Capable of giving justice to both parties in times of conflict. The head of the family who solves the problems gets status of "Yajaman".



3. Ability to share information with the villagers.

A person who is well read , capable of disseminating information with the villagers is respected.

4. Honesty with the life partner and being a non-alcoholic.

As far as alcoholism is concerned, the villagers said that 'one should drink only so much that he is in total control of his senses'. But drinking alcohol and being able to afford it is considered as a status symbol by certain sections of tribals in Rajasthan.

5. Ability to send girls to school.

A family must treat a son and daughter as equals. They should make it a point to send their daughter to school. Maganlal B. Patel from Patti village of Navsari opines 'Education is the only medium through which an individual can attain enlightenment and a source of income in the long run, thus education must be made a household term.'

6. Using footwear

The villagers said that wearing footwear was a common phenomenon amongst those families who earn substantial income. The children in Kavdej village of village use footwear only while going to school. Therefore, it is more a status symbol rather than an essential item.

#### 4.0 STATUS OF WOMEN

It is essential to encourage active participation of rural families and treat them as partners in the development process. It is necessary to strengthen efforts towards

increasing the participation of women in socio-cultural activities within the community. During the exploratory visits , the discussions related to decision making capacity of women and division of labour in a household etc.

Our observations regarding women were, they do not talk much especially those belonging to lower classes. From each village a group of 20 to 30 women participated but only few were bold enough to participate in the discussion. In the remote interior villages women do not expose their face to unknown men. The custom of 'ghunghat' or veil is prevalent. In spite of all this, the women as a rule do not purchase costly items for household use without the men's permission.

Man's priority is 'land' whereas women emphasize on 'food'. Men consult women while taking decision regarding marriage etc. But on matters pertaining to finance or shifting from kutcha to pucca houses, women are seldom consulted. The decision making capacity of a women is only restricted to what has to be cooked for a meal. Indicators of women's status are,

1. Women's involvement in decision making
2. Sustainable self employment at the doorstep and control over income
3. Equal division of work at home and outside
4. One whose husband does not ill-treat her
5. Has no worries and has a complete family
6. Can decide the size of the family

## 2. PEOPLE'S PERCEPTION OF DEVELOPMENT



OWNING FARM IMPLEMENTS -  
AN INDICATOR OF DEVELOPMENT IN RURAL AREAS



GREEN AND GRAINS =  
ALSO AN INDICATOR OF DEVELOPMENT



**WASTELAND RECLAMATION AND ENVIRONMENTAL PROSPERITY**



**KEEPING THE HEARTH ALIVE IS PROGRESS TOO**





GIVE US THIS DAY OUR DAILY BREAD  
THE LITTLE GIRL SEEMS TO SAY

## 5.0 HEALTH STATUS INDICATOR :

In order to understand their perceptions on health and development we asked question on infrastructure, concept of a healthy person, what are bad diseases, awareness on personal, community health, immunisation, etc. To arrive at the health status indicators, the following aspects were covered in depth.

### 1. Drinking water facility

In most villages, water supply scheme exists for domestic use. It is mostly supplied through open/bore wells. Water borne diseases like gastro-enteritis, cholera, typhoid, jaundice occur every year, which takes toll of human lives in the area. Incidence of malaria is also significant.

### 2. Awareness of immunization

Most women immunise their children. In some villages immunisation is not done regularly. Women are aware about immunisation and iron tablets. The faith in traditional medicine is fast dwindling among the people. Very few people visit the faith healers for common ailments such as cough and cold. Amongst the poor families small and marginal they can seldom afford special diets for pregnant women.

### 3) Personal And Community Health

Personal clean habits, safe drinking water and availability of health care is essential to maintain good health at family and community level. Well to do

families felt the necessity for sanitary latrines, bathrooms etc. The underprivileged classes do not feel the need for such 'luxury'. They prefer to defecate in the open fields. Physical exercise and work is also essential to maintain good health.

#### 4) Nutritional Status

In Saurashtra area, most of the farmers cultivate groundnut, til, jowar and bajra. Because of the easy availability of the high protein nuts, malnourishment amongst pregnant women and children is not obvious. In the poorer families, whatever little nutritious food is available is exclusively given to the women.

#### 5) Concept of a healthy person

The definition of a healthy person as given by the villagers is, a person who has no fever or headache, strong and stout, has no worries or disease and one who has a nutritious diet.

Indicators of health are,

1. Safe water supply determines health status which in turn prevents water borne diseases.
2. Availability of oil seeds determine nutritional status which in turn provides high calories in the diet.
3. Open air defecation is responsible for water borne diseases. Due to the scarcity of water, people do not feel the necessity for sanitary latrines. Awareness regarding hygienic sanitation practices is an indicator of health.

#### 4. Immunisation status.

Poor people cannot afford to loose their wages just to take their baby to the clinic. Therefore they are negligent about immunisation.

#### 5. Type of food consumed daily, during pregnancy and after pregnancy indicates malnutritional status.

#### 6. Ability to take bath regularly and absence of minor illness.

### 6.0 STATUS OF ENVIRONMENT :

An attempt was made to observe as, to what extent villagers have knowledge about conservation of nature and to test their ability to interpret their perceptions of environment in light of environmental considerations. Most of the villagers opined, trees are cut down indiscriminately for earning money and getting fuel wood. Cutting of trees has had bad effect on rains. In yester years, nature on its own used to grow trees but man for his own economic gains started cutting trees causing deforestation. The green cover has reduced over the years, giving rise to concrete jungles. The relation between trees and rain was not very clear. In Borla village of Bhavnagar district the villagers said 'if green cover is maintained only then will we get favourable rains. 10 years ago there was ample green cover and consequently there were regular and adequate rains. The villages in all the four states were aware that burning



cowdung cakes is bad for the environment. Indicators of a sustainable environment are,

1. Planting trees on community and private lands.
2. Availability of clean drinking water and air.
3. Existence of gobar gas plants within village, either individual or community based.
4. Provision of community / private toilets in the village.
5. Preserving the environment and maintaining clean surroundings.

#### 7.0 QUALITY OF LIFE :

The villagers said that the quality of life will improve only if the following infrastructural facilities are available within the village '.

- Provision of irrigation facilities
- Availability of electricity of supply both for domestic and agricultural purposes.
- Existence of co-operative milk society's which provides income on a regular basis.
- Land title on their name
- Clean surroundings
- Sustainable self-employment at their door steps
- Transport facilities - provision for regular bus service to and from the village.

The quality of life would improve if each family owned atleast 2 acres of land, 25 quintals of grains (which is the staple food) is available all through the year, ownership of livestock, agricultural equipment, plough and

harrow, 4 pairs of clothes for each member, pucca house with a separate cowshed, savings in term of solid assets such as gold or land, educating the children (both girls and boys) atleast upto higher secondary. Out of our observations and perception of the villages, the indication for a better quality of life are:

1. The quality of life of people is said to be improved, due to increase in awareness, transport facilities and communication with urban cities.
2. The availability of drinking water within a radius of one to two kms will ease the burden of women by giving her much more time to spend with her children.
3. Constant interaction with the urban people will help to improve the confidence level of the villagers.
4. Ability to discuss problems aloud.
5. Availability of sufficient food and safe drinking water.
6. Availability of employment opportunities in villages.
7. Existence of an active Mahila and Yuvak mandal in each village.

The derived package of indicators applicable at the societal level is given in Table 2.

Apart from the indicators of development applicable to societies we also undertook an exercise of holding discussions with individuals. Their perceptions on a wealthy, prestigious, popular and good person is given in Table 3.

TABLE 2 : DERIVED PACKAGE OF INDICATORS

ECONOMIC STATUS	SOCIAL STATUS	WOMEN'S STATUS	HEALTH STATUS	ENVIRONMENT STATUS	QUALITY OF LIFE	DEBAMS/ASPIRATIONS
Owning land	Good behaviour	Decision making capacity	No headaches, fever	Large no. of trees	Ability to discuss problems aloud	Plenty of daily wear clothes plus a pair of special clothes
Businessman/Serviceman	Participation at public meetings	Has control over her income	Strong person	Provision of clean drinking water	Enhanced confidence	Adequate food round the year
Owens crossbred cattle	Leadership qualities	One whose husband does not ill treat	Has adequate stamina	Pollution free environment	Availability of employment opportunities in villages	Children getting educated & having good jobs
Owens pucca house	Cordial relationship with villagers	Has no worries	Works round the year	Growing forestry species for firewood purposes	Provision of infrastructural facilities	Children married off in time
Has plenty of vessels	Being non critical	Has adequate finances	A person who leads a happy life	Having soak pits	Increased awareness	Provision of Mahila & Yuvak mandals.
Has ornaments	Soft spoken	Has a complete family	Has a radiant/healthy face	Not defecating in the open	Provision of Mahila & Yuvak mandals.	Provision of entertainment facilities within village
Capacity to store grains	Good habits	Has enough food to eat	No diseases of any type, proper diet	Using improved chullahs		
Owens farm implements	Helps others	Can decide the family size	Can afford good food, fruits	No over crowding		
Owens pump, well	Knowledge & wisdom	Not overburdened with work	Adequate nutrition, caloric intake			
Has variety in food	Tries to do justice		All the children below 5 are immunised			
Has plenty to eat	Honest with life partner		Good M-C-H care facilities			
Production for sale	Adequate social security					
Afford education atleast upto matriculation.	Respects human freedom					
Curb migration	Marriages with equal or more prestigious family					
Owens an automobile	Spend on occasions like marriage, travel etc.					
	Men & women attend adult literacy classes					
	Access to newspaper					

TABLE 3 : PEOPLES PERCEPTION REGARDING PERSONAL QUALITIES

Wealthy	Popular	Presitigious	Good
1. Having land	1. Good behaviour	1. Resourceful &	1. Ability to help poor;
2. Businessman	2. Not critical	useful to others	money, job, food.
3. Serviceman	of others.	2. Has money.	2. Ability to solve
4. Having plenty of	3. Soft spoken.	3. Who is admired	problems - Quarrel
cattle (dairy)	4. Good habits.	by whole community	between couples.
5. Sufficient cots	5. Help others.	for his helping	3. Helps others in
and beddings to		nature.	sickness.
sleep.		4. Who has understanding	4. Loving, calm and quiet.
6. Well-built, own		about others.	5. Plans and implements
house.		5. Tries to do justice.	income generation
7. Plenty of vessels		6. Has knowledge, wisdom.	schemes and development
8. Has ornaments		7. Travels much.	programmes on collective
9. Credit worthiness			basis.
10. Having variety of			6. Well-behaved.
crops.			7. Clean.
11. Can educate			8. Hospitable.
children			9. Educated.
12. Has source of			10. Does not criticize others.
income esp. other			11. Well behaved towards women.
than farming.			12. Does not drink alcohol.
13. Has a well, pump.			13. Does not lie.
14. Has variety in			
food.			
15. Can have spices			
and condiments,			
green vegetables.			
16. Has plenty to eat.			
17. Has money.			
18. Has stored grains.			

As is evident from the above table, the various concepts like happiness, prosperity, wealth have a considerable overlap. This was a basic anticipated assumption. The interesting features were the perceived ability and willingness to help others in the community. Indicators used by the people ranged from economic to social and moral values.

Starting from the basic needs and the fulfillment, we go on to spiritual achievement and the like. The difference in the perception of the rural and urban elite is one of 'grade' of fulfilment of needs. The rural by virtue of being engaged in agro-based occupations and clustering around the 'Poverty line' define happiness/comfort in terms of basic needs and land. Whereas the well to do urban middle class define it more in terms of movable property and possessions.

The perception of the rural community are not very different from the urban. What is different is the expression and frame of reference. However, economic compulsion, tops the people's list of priorities. This has to be borne in mind while planning any development activity for the rural areas. Women's perspective, stemming from their existing low social status as well as from gender specific differences in psychology should also be considered in programme planning.

#### 8.0 COMPARISON WITH COMMONLY USED INDICATORS

The concept of development can be viewed as a process of realizing certain goals or values, such as improved health,

improved housing, increased command over resources, etc. On the other hand "more developed" and "less developed" communities can be comparatively studied and empirically found differences between them can be adopted to indicate the meaning of development. Such comparisons generally focus on variations in per capita incomes, percentage of population living in rural and urban areas, percentage of workers employed in primary, secondary and tertiary sectors, literary rates, mortality and fertility rates etc. Apart from such predominant economic variables, there are sociological variables like division of labour and social differentiation, rationalisation of values, modernisation in outlook and political variables like mobilisation and participation which are associated with socio-economic development of societies.

The commonly used indicators such as income was first developed as a way of measuring welfare and well-being. Income is also a record of economic activities of the production of goods and services already achieved. Though GNP remains the most widely used indicator of the level of development in terms of inter-country and inter-temporal comparisons, critics have repeatedly and often fashionably argued that development levels ought not to be assessed by income measure alone and that one must take into account social and human welfare criteria.

The indicators that have resulted from this study - is a combination study of the human development index (HDI), Drewnowski and Scotts level of living index, the McGranahan et al "development index" and the Morris "physical quality of life index" (PQLI). The indicators derived imply that social and human conditions are not the only factors for the assessment of development levels nor does it imply a causal relationship between income per capita and these conditions.

#### 9.0 VALIDATING INDICATORS :

The derived package of indicators and the methodologies used was validated in Ahmednagar district of Maharashtra and Navsari in Gujarat. The finding of this exercise are briefly given :

1. The indicators people come up with when asked what constitutes development and progress depend to a large extent on the context.
2. What people claim as important in the abstract often bears little relation to the concrete choices they ultimately make.

More detailed and specific research needs to be taken up in the area of sensitivity and specificity alongwith an exercise in quantification.

## CHAPTER VI

### CONCLUSIONS AND RECOMMENDATIONS

The project on indicators was very useful in understanding the people's perception of development. The order of importance assigned by the people to each aspect of development can provide a useful insight when further designing development projects. The policy implication of the fact, that economic status is the foremost indicator of development is that any programme which is likely to enhance the prospects of the people either in economic or monetary terms will have greater chances of being successful. Thus, if the aim of a certain project is betterment of the health of the people, it would be essential to make an entry point in terms of livelihood.

Similarly, attempts at uplifting the status of women can be successful only if the initial inputs involve raising economic and social status, as these are perceived to be more important than women's status.

However, while people's perception of development is definitely important, the risk of neglecting certain important aspects like environmental degradation, exist. People may not be aware of the negative effects of development in terms of pollution or deforestation, while prospects of enhanced incomes are generally welcome by the rural masses, accompanying effects may adversely affect the quality of life.

It therefore becomes essential to strike a balance. Both, perceptions of the potential participants of the development programme, as well as aspects which may appear insignificant to them, need to be taken cognisance of, while formulating any development project.



DETAILED LIST OF LITERATURE STUDIED

- 1) Anderson V.;1991, Alternative Economic Indicators, London.
- 2) Chakravarthi Committee Report 1985-89
- 3) Chidambaram, R.; Measures of development, Times of India Sept 93.
- 4) Gupta, A.K.; Saga of a Star Fish: How Do "We" Participate In "People's" Design of Sustainable Institutions for Natural Resource Management
- 5) Gupta, A.K.; "Social Effects" of Rural Projects - Monitoring through People's Participation
- 6) Hodge R.A.; 1993, Reporting on Sustainable and Equitable Development.
- 7) Iyengar,N.S and Bhattacharya; N, Studies on level of living in India, A survey in Economics, Allied Publishers New Delhi.
- 8) Manga Pranolal; Health and Socio-economic development in India - An overview.
- 9) Parikh,K.S; Human development Index: Is the search for an ideal HDI in vain?
- 10) Planning Commission Report 1982-92

- 11) Rastogi, P.N; Policy Solving for Social system towards understanding, monitoring and managing complex real world problems. Sage publications
- 12) Surjit Bhalla; 1988, Does Land Quality Matter? Theory and Measurement, Journal of Development Economics, North Holland.
- 13) Suryanarayana, M.H, & Geetha, S, Estimation of P - alpha poverty measure for lognormal distribution.
- 14) UNCED,; 1992 Agenda 21, United Nations Conference on Environment and Development, United Nations, New York.
- 15) UNDP The World Environment; 1975-81, United Nations Environment Programme, Dublin.
- 16) UNDP Human Development Report 1985-90
- 17) UNDP; 1990-92; Human Development Report, Oxford University Press, New York.
- 18) UNDP Human Development Index - December 1992, "Some methodological issues and alternative measures" Paper presented at India and SouthEast Asia meeting of the Econometric Society of India.
- 19) World Bank Report 1987-92

## LIST OF VILLAGES

STATE	DISTRICTS	VILLAGES
Gujarat	Baroda	Tawra Padriyapura Pala Nanhkpura Lakadikui Devlia
	Bhavnagar	Sarvedi Jariya Borla Sathra Chopda Bhuttेशwar
	Valsad	Vangan Bilimoda Kavdej Vavar Sutharpada Khanda
Karnataka	Dharwad	Jiregwad Agadi Bevanhuvali Hulthote Palikoppa Devarbhupura Agrahara
	Tumkur	Banihalli Bemenhalli Yemenhalli Tandaga
	Mysore	Hygre Kollagala B.R. Kawal Badaga Vadambal Rajangoudan Hundi Hadi
Maharashtra	Ahmednagar	Kanakapur Shergaon Dwapar Chickli Oatdhawane Manere Pimperkane

STATE	DISTRICTS	VILLAGES
Maharashtra	Satara	Bodarwadi Ghoteghar Awahali Bhause Khinghar Dandeghar
	Pune	Jawachi Buvachi Wadi Tambewadi Boriandi Ingloon Pimpri Sangavade Salumbre
Rajasthan	Bhilwara	Shivrathi Pratappura Rampuria Malikheda Mataji Ka Kheda Jodha Ka Kheda
	Udaipur	Baghpura Goran Awada Undri Nai Kurhadia Shampura

## SOCIO-ECONOMIC PROFILE

India has a mixed bag of experience in the development profile of villages. Each village has a distinct identity in the physical, socio-economic and political map of India, in terms of its unique combination of material resources, human capital and socio-political ethos. The path to development of a village has not necessarily been of the 'Lewis' variety with structural shifts of surplus labour from rural to urban sector neither has it necessarily evolved around the Gandhian path of 'village republic'. Over the years, each village has evolved its own pattern of development based on its societal relations, political milieu, economic opportunities and other resources. The development in most cases has been slow and not perceptible. The pace of transformation has also varied extensively from one village to another. Amongst a plethora of descriptions this write up reflects the socio-economic profile in each state.

## GUJARAT

The population in the 3 districts as per the 1991 census is

Districts	Total population (1991 census)	Area (in sq.m)
Bhavnagar	22,87,751	11,155
Vadodara	15,66,412	6,814
Valsad	21,72,992	5,244

Around 62 percent of the people in Gujarat depend on agriculture. It has 19.56 lakh hectares of land under forest.

Out of the sample of 3 districts chosen, 17.2 percent is scheduled caste and 18 percent is composed of scheduled tribe. The majority of the population comprises of Hindus and Muslims are in minority. The scheduled castes in the area are Koli Patel, Bharawad, Darabar, Sutar, Koli, Chamar and Lohars. Kokanas, Warlis, Kolchas, Dhodiyas and Kotwaliyas are the prominent scheduled tribes in the area. The other communities in the region are Rajputs, Patels and Brahmins.

The main occupation in the area is agriculture, agriculture labour and dairy activities. The principal crops grown are groundnut, bajra, jowar, cotton and maize.

The land holding pattern is skewed ranging from 1-4 acres. Most of the farmers have only marginal landholding. The housing pattern is determined on the basis of caste. The lower castes stay in far flunged areas away from the main village place. The well-to-do castes live close to the village place. The material used for constructing houses also varies from area to area, depending on what is locally available.

The infrasturcture facilities like transport, PHCs, schools, electricity and post offices do exisit in almost all the villages. During the summer months most of the villages face acute shortage of water. The interior villages are unapproachable during the rainy months. The wage rate for agricultural labour within the village is Rs. 15 for men and Rs. 10 for women.

Child marriages are not prevalent in the area. Amongst the scheduled tribe, it is a custom to give the girls father dowry unlike the normal practice. The consent of children is also taken during marriages.

Education is not considered to be a prerequisite for a good economic status. Education is therefore neglected by and large. The drop out rate is highest in the villages of Gujarat. The villages inhabited by tribals were observed to be very clean as against other communities.

In villages located close to the industrial areas, irrigation is a common feature. Contradictory statements on migration were reported in all the villages. A villager who is aware that migration is bad said, 'Migration is not undertaken unless it is essential. The villagers believe that migration is a social evil'. But during the field study we observed that families do migrate in search of employment. Villagers migrate to Surat, Baroda for sundry work for 3-4 months. Many government schemes have also been initiated in the area, but by and large they have failed. Mithilaben from the Khanda village of Dharampur opines that 'the compulsion to migrate arises from the fact that there is very little opportunity available for the villagers.' Though most of the villages are electrified only 50 to 60 percent of the population avail of these facilities because the monthly bill is often too high and hence unaffordable.

Villages like Borla and Jariya in Bhavnagar, Vangan in Valsad, Lakadikui in Vadodara and Khanda in Dharampur were observed to be progressive villages in comparisons to others.

## KARNATAKA

It is the eight largest state in India. The population of the districts is as follows.

Districts	Total population (1991 census)	Area (in sq.m)
Dharwad	34,98,814	13,738
Hassan	15,66,412	6,814
Tiptur	23,01,448	10,598
Mysore	31,55,995	11,954

Karnataka predominantly is rural and agrarian in nature. About 76 percent of its population lives in rural areas while about 71 percent of its working force is engaged in agriculture and allied activities. Out of the representative sample of 4 districts selected in Karnataka, 18.2 are scheduled castes and 14.9 are scheduled tribes. The schedule castes in the area are Uphar, Dhobhi, Tigala, Wakhaliza, Kumbhar, Madivak and Gamge. The prominent scheduled tribes in the area are Adijambu, Edigatuk, Jenu kuruba, Betta kuruba, Banajigas, Soligas and Yaravas. Majority of the population belong to the Lingayat and Acharrya communities.

The average landholding in the area varies from 2 to 3 acres. Most of the families indulge in agricultural labour and migration is also a regular feature. Many landless families migrate to coffee and tobacco plantations in the summer months in search of employment.

The wages for agricultural labour vary for men and women ie Rs. 25 for men and Rs 15 for women. The wages also depend upon the



type of work undertaken. The main crops grown in the area are Ragi, Coconut, Paddy and Sorghum. Cash crops like tobacco and cotton are also grown.

The land holding pattern is also highly scattered and the ownership of land is also sub divided and fragmented. Irrigation facilities are also not available and most of the agriculture is rainfed. The Harijan or downtrodden hamlets are located far away. Untouchability is also practiced by the higher castes.

The houses in the areas are partially kutcha and pucca structures. The well-to-do families live in brick houses.

Drinking water and primary health facilities are not available in convenient locations. Most of the families unanimously complained of the hurdles. Women have to spend atleast 6-8 hours a day on collection of water from far flung areas. Though primary and secondary schools did exist in the area, people preferred not to send their children to school owing to poverty.

The girls are married off at an early age and dowry is also given as a custom. Widows in the community are not allowed to participate in religious functions. They are not allowed to freely mingle with the other family members.

Most of the villages visited are backward and sanitation and hygiene are unknown to them. The status of men is higher than that of women and the role of women is such that it is within the confines of the kitchen.

The basic infrastructural facilities in the area like transportation and electrification are better than that of other states.

Nigadi, a big hamlet located in Dharwad is fairly a progressive village. Unlike other villages, irrigation facilities and drinking water is easily available in Nigadi. By nature, people are hardworking and dairy business was reported as an allied occupation.

As far as Jawahar Rojgar Yojana is concerned it was reported that till date no work had been done and the money had not reached the mukhia from districts headquarters.

#### MAHARASHTRA

It is the third largest state in India.

Districts	Total population (1991 census)	Area (in sq.m)
Ahmednagar	3,362,359	17,048
Pune	5,494,336	15,642
Satara	2,444,857	10,484

About 70 percent of the people in Maharashtra depend on agriculture. About 12.22 percent of the total cultivated area is irrigated. Out of the sample of three districts chosen, scheduled caste constitute 19.79 percent and the scheduled tribe 12.1 percent of the total population. The total population is a combination of Hindus, Muslims, Buddhists and Christians. The

dominant schedule castes in the area are Mahadev Kolis, Matangs, Kumbhars, Chamars, Lohar, Sutar, Mali, Gosavi and Navhi. The dominant scheduled tribes are Adivasi Thakkars and Bhils.

The agricultural labourers constitute 48.78% and cultivators are 35.5% of the the workers indicating predominantly agricultural base. Migration is also a regular phenomenon . Agricultural labourers travel almost 5-175 kms in search of employment for around 3-4 months. They earn in the range of 70-100 rupees depending upon the nature of work. The principal crop during kharif is sugarcane, groundnut and during rabi is wheat, bajra and paddy in some areas.

The pattern of land holding in villages was highly skewed and there is a clear distinction of residential areas segregated on the basis of caste. The outskirts of the district places are invariably dominated by the higher castes who are economically better-off. Most of the houses in the area were kutcha except those belonging to the high caste families. Drinking water as a severe constraint was reported by almost all the villagers. The women have to walk long distances to collect water.

Very few children of poor families go to school mostly because they cannot afford it and they also use children as a source of earning.

The wage rate ranges from Rs.20 for men and Rs.15 for women. Equality of sexes was unheard of in the villages of Ahmednagar and Satara. Though primary health centres and schools did exist

in the talukas, the services extended were observed to be poor. Children looked malnourished and none of them were immunised though the elders in the village were aware of immunization programmes but they could not afford it.

Child marriages are also prevalent. Size of dowry was exorbitant but it varied from community to community. Among certain tribes of Akole district it is a custom for males to give dowry.

The various constraints faced by the children and their families led to very low enrollment in schools. Some of the reasons for this were poverty leading to child labour, illiteracy of parents, lack of study culture, where education is not seen as a felt need and a feeling of 'apathy' which led to a feeling that it was beyond their scope.

In Maharashtra, villages like Kanakapur in Ahmednagar district and Salumbre in Pune district have a stable village economy due to its proximity to the town.

## RAJASTHAN

Rajasthan is one of the few states of India that shows great contrast from one area to another. This disparity is noticeable in respect of climate, soil, vegetation, mineral resources, etc.

Districts	Total population (1991 census)	Area (in sq.m)
Bhilwara	15,91,236	10,450
Udaipur	28,85,039	17,267

The villages in both the districts are well planned. Cropping pattern is nearly the same. Some of the villages ie 5 have irrigation facilities. The villages situated near the coastal areas have abundant employment opportunities. The population of villages ranges from 1500 to 300. The average family size is around 6-10 members per family. The main agricultural crops grown in the area are jowar, bajra, kamod rice, jeera, ajwain, suva, etc.

The dominant communities in the areas are Koli, Patel, Malis, Billa, Vaishnavs, Kir, Sutar, Bharwads, Harijans, Chamars, Rajputs and Brahmins. The Patels are the most well-to-do and hence dictate the other communities at large. The Koli Patel community of Sarvedi village had suffered due to submerging of their village due to construction of dams.

Most of the villagers own some land from 3 acres to 10 acres. Small farmers and landless poor communities work as farm labourers. Some also migrate to cities. The villagers near the coastal areas work at the ship breaking industries located at Alang and earn Rs. 20 to 40 for men and Rs. 15-25 for women depending upon the nature of the work.

Most of the villages receive water supply from open wells for domestic purposes. In few villages hand pumps and water supply schemes also exist.

Economy of most of the villagers depend on agriculture. In the large village like Sanosar (Sarvedi), Bhuteshwar, Tapraj, PHC's are available. Immunisation and Mother and child health care is taken up on regular basis. Water borne diseases like gastroenteritis, cholera, typhoid, jaundice, occur every year which takes toll of human lives in the area.

Most of the villagers in this area migrate to cities for selling mewad ice-creams (in Shivratti of Bhilwada) and diamond-cutting activities in Udaipur.

The social status of women is no different from their counterparts in other states. The women are seldom involved in decision making and are often more burdened with household chores.

## CHECKLIST

## A. VILLAGEWISE DOCUMENTATION

## Village Classification

- a. Tribals / Schedule Caste and near forest location.
- b. Non-tribal / Mixed population & interior rural location.
- c. Non-tribal / Mixed population and near Urban location.

## 1.0 Village Profile

- 1.1 Name of the village
- 1.2 Taluka
- 1.3 District
- 1.4 No. of families
- 1.5 Population
- 1.6 Castes / Tribes
- 1.7 Landless families
- 1.8 Landholding families
- 1.9 Average landholding
- 1.10 Occupation
- 1.11 Drinking water facilities - sources - scarcity
- 1.12 Irrigation facilities
- 1.13 Health facilities
- 1.14 Other infrastructure - schools, road, post, bank,  
transport facilities, recreation, etc.
- 1.15 Electricity supply - domestic, agricultural
- 1.16 Place and distance of market place
- 1.17 Wages for men and women
- 1.18 Type of work (for men and women)
- 1.19 Period of wages (for men and women)
- 1.20 Migration - duration

- 1.21 Places of wages
- 1.22 Societies & associatons
- 1.23 Livestock - facilities, dairy, sale of mailk etc.
- 1.24 Crops
  - a. Kharip
  - b. Rabbi
  - c. Summer
- 1.25 Orchards
- 1.26 Other information
- 2.0 Observations
- 3.0 Economic Status
  - 3.1 Discussions
  - 3.2 Comments
  - 3.3 Possible indicators
- 4.0 Social status
  - 4.1 Discussions
  - 4.2 Comments
  - 4.3 Possible indicators
- 5.0 Status of men and women family (work distribution and decision making)
  - 5.1 Discussions
  - 5.2 Comments
  - 5.3 Possible indicators



## 6.0 Health status

6.1 Discussions

6.2 Comments

6.3 Possible indicators

## 7.0 Status of family within community

7.1 Discussions

7.2 Comments

7.3 Possible indicators

## 8.0 Status of environment

8.1 Discussions

8.2 Comments

8.3 Possible indicators

## 9.0 Degraded conditions of national resources & its upgradation

9.1 Discussions

9.2 Comments

9.3 Possible indicators

## 10.0 Status of living condition

10.1 Discussions

10.2 Comments

10.3 Possible indicators

## 11.0 Problems (village level)

11.1 Discussions

11.2 Comments

11.3 Possible indicators

12.0 Priorities of expectations in case of increased income

12.1 Discussions

12.2 Comments

12.3 Possible indicators

B. SUMMARY (for 3.0 to 12.0)

a. Comments

b. Possible Indicators

c. How to quantify and measure those indicators

C. SUGGESTIONS (for 3.0 to 12.0)

i) Possible common indicators

ii) Possible area specific indicators